Meeting Description: Michigan Geographic Framework Users Meeting
Date: October 5, 2000 **Time:** 10:00 a.m.
Location: Romney Building, 10th Floor, Michigan Information Center Conference Room

I.   Approval of September Meeting Minutes

II.   Geographic Framework Program
   A.   Phase 2 / Seaming Status
   Rob Surber, Michigan Information Center (MIC), distributed a current status map. MIC is creating a
statewide base map that combines Michigan Resource Information System (MIRIS) and Topologically
Integrated Geographic Encoding and Referencing (TIGER). The final Version 1 of the map is complete for the
Upper Peninsula and upper Lower Peninsula. The original design of the base map is in the product – MIRIS,
TIGER, new roads, and linear reference system. The other Lower Peninsula counties are in a variety of stages
of production. The seaming process coordinates attributes and geography as they meet at the county lines. MIC
finished Phase 2 (road names identified) work on Livingston and Macomb counties and passed on to Michigan
State Industries (MSI) to add Michigan Department of Transportation (MDOT) attributes. MIC is working on
Oakland and Wayne counties. Oakland County will be completed in a month or so. There are 3 people
working around the clock on Wayne County and MIC will be adding a 4th person to do quality control. The
goal is to finish Wayne County by the end of the year. MIC expects to have the entire state fully seamed some
time in the spring.
   B.   Polygon Build / Act 51 Update
   Rob Surber, MIC, reported that MIC is finishing updating 1990 TIGER census boundaries in the base map.
They are doing this work in parallel with seaming. When seaming is done, the polygon build will be done as
well. The polygon build process updates school district boundaries and other boundaries.
   C.   FY2001 Michigan Department of Transportation (MDOT) Agreement
   Rob Surber, MIC, reported that a special agreement was established for MIC to do additional work other
than standard framework maintenance for MDOT. In addition to framework maintenance of official certified
roads, MIC will do a one-time mile point correction and mileage on all roads including private and local roads.
MIC will update positional accuracy of base with the digital ortho photography being collected and archived
within the state. The innovative partnership (IP) with United States Geological Survey (USGS) will provide
ortho's to fill in blank spots in the state. MDOT will adjust trunkline mileage using sufficiency data and other
distance measurements that they collect. Anything along trunkline or federal roads will come from MDOT
rather than USGS. In addition to roads being repositioned, will reposition hydro features as well. Shoreline
issues will be sent to Land and Water Management, Michigan Department of Environmental Quality (MDEQ),
to comment on and provide feedback on repositioning. MIC will also be repositioning rail and has a meeting
scheduled later this month to discuss data which originally came from USGS topographic maps. MIC will
attribute rail based on active rail names; inactive track or right-of-way; yard or spur; primary and secondary rail
names; and linear reference system. There is interest in rail crossings throughout the state and the MIC will
explore possibilities of relating this information to the Michigan Geographic Framework (MGF) with MDOT.
It may not be a part of MIC's work, but in the future MDOT may tag identification numbers and those will be
available to be added into framework. The rail will be a priority this coming year. Also part of the MDOT
agreement is a continued development of the system update and version control procedures. MIC developed a
lot of programs in the initial creation of the product and now are going to create a framework editor program
designed to keep track of versions. It is going to be designed in the new geo database. Rob is unsure when they
will move over to that. For the short-term, there are programs and procedures that allow updates for the next
year. Hope to move into the new development environment by the end of next fiscal year. MIC has the task of
firming up urban boundaries in the state for functional class administration. This is a $820,000 project that
allows MIC to speed up the repositioning effort by adding staff and computers.

D.   Digital Ortho Order

Rob Surber, MIC, reported that MIC is purchasing 350 ortho's from USGS above and beyond what the IP is supplying to the state. The purchase order is in the approval path. MIC will convert ortho's to Michigan GeoRef, county mosaics, MrSid, and state plane version. A status map is available.

E.   Jurisdictional Boundary Update

Rob Surber, MIC, reported that the framework represents is a variety of themes – transportation, elevation, digital ortho photography, etc. One of the components is a jurisdictional boundary. MIC is taking these boundaries seriously as they plan for future maintenance of framework. Different types of boundaries can occur and MIC has been doing quite a bit of research into Act 425 boundaries (land share agreement for sharing utilities, sharing of tax dollars, etc.) MIC has been asking a lot of questions of the Attorney General's Office and finding that nobody had asked questions before. MIC interested in not only documenting where the 425's are located, but are finding that each 425 Agreement is different. Part of framework supports census related integration efforts that in turn go into some State programs including qualified voter file (QVF). As MIC is putting boundaries into the map, they want to be sure that people live and vote at that address - this can vary. A staff person is assigned to research and keep a spreadsheet about 425s. Then MIC will code information into the map. There are a lot of different needs for boundary information. MIC wants to gather as much information as possible and will probably provide a way for users of framework to suggest ways to represent it.

Joyce Newell, MDOT, one of the complications is that most 425 agreements have Sunset. There is no method in place to be sure they Sunset when they are supposed to.

Rob Surber, MIC, added that they are finding that the Sunset is not always specified. MIC found that people want the Sunset to happen and nobody asks questions. The Attorney General's office is working with MIC on this. MIC will provide flow charts and documentation to describe process of what is effective and not effective. Will probably find that census have variations in between framework. MIC will have to have documentation straight to be able to answer questions. New annexations will be incorporated into framework regardless of what census has.

Joyce Newell, MDOT, asked when 425 Agreements began.

Rob Surber, MIC, responded that they began in 1984, but were not recorded until 1990.

Everett Root, MIC, added that they have been submitted to the Census Bureau as true annexations.

Joyce Newell, MDOT, added that 425 Agreements were not used much.

Rob Surber, MIC, commented that they have become popular lately. At this point, MIC is only talking about city and township boundaries. This is an important piece of geography that people assume is there.

F.   County GIS Conference

Rob Surber, MIC, reported that the County GIS Conference, a IMAGIN sponsored local conference, would be in a couple weeks. MIC reserved a booth to display state GIS. MIC is soliciting others' maps and/or products, handouts, pamphlets, brochures to display GIS output. Submit to MIC mounted and ready by Wednesday, October 11.

G.   Ottawa County Partnership

Rob Surber, MIC, reported that MIC has set up meeting with Ottawa County by the end of the month to discuss a partnership similar to the Wayne County partnership. Wayne County is working with MIC on a fundamental framework identification level – sharing information and update maintenance. Working on common id's within databases so they can share and control versions. MIC is looking at Ottawa County as a potential partner who wants to adopt the framework base and wants to update to greater positional accuracy and add new roads based on common standards of attributes to maintain, share or don't want to share. Will develop a technical work group between offices.

III.   Michigan Department of Natural Resources (MDNR) Projects and Activities

Gary Bilow, MDNR, reported that it is a new budget year for the state. MDNR has new initiatives starting out of the technology fund money (early retirement savings) that came back to them, but it is less than they have had for geographic information systems (GIS) activities in past. They are continuing the Spatial Information

Resource Center in Roscommon and major projects. The biggest is the integrated forest monitoring and assessment program (BIT map). It is being developed by a consultant and will have a remote sensing base to do forest inventory. This is an attempt to integrate all levels of forest monitoring into one system and build decision support tools based on it. This year, they hope to finish a project for the high-resolution digital ortho photos for state parks – 80 parks have been done. Some state parks are completed with in-house GIS information. This will bring it all together in a park format. The project will interpret park roads and campgrounds into framework. MDNR will be working on coming up with MDNR facility boundary map. They are now creating maps based on real estate information system (REIS) in a 40-acre grid, which is good for large areas, but for facilities 10-acre parcels are better for facilities on MDNR-owned lands. MDNR is also refining land information by finding a way to automate the process of reading the Meets and Bounds type legal descriptions and automating the creation of polygons. This is a pilot project consisting of 10 counties primarily in northern Lower Peninsula region in original proposal. MDNR is developing an information library for internal staff. It will be developed in ArcIMS application and will put all management information together in one spot. The innovative partnership ortho photo order has been submitted. There is an issue with the Natural Resources Conservation Service (NRCS) money, since it didn't come through the same channels. A resolution is being worked on. MDNR added a new projection utility. It is an extension that MDNR had prepared to do Michigan GeoRef projections. It has been developed, tested, and is now available.

Bill Enslin, MSU Center for Remote Sensing and GIS, reported that Tracey Aichle, MSU, would do a presentation on projection conversions at the IMAGIN Conference. She will distribute MDNR discs because it is not available on the MDNR web site.

Rob Surber, MIC, commented that it is on the listserv as an attachment.

Gary Bilow, MDNR, added that they would be sure that it is put on their data spatial library. MDNR has a consistent product in their REIS where the same format was used for parcels.

Rob Surber, MIC, asked if the 10-acre pilot and Meets and Bounds region are two separate pilots.

Gary Bilow, MDNR, responded that they are two different efforts. The geography for the public land ownership coverage will be a polygon base coverage that will start with MDNR facilities and attempt to outline the boundaries. There will be a vector outline and will not link a smaller grid area. It will be attributed with the administrating agency. State park or state game areas would be an example. At this time, state forest boundaries are following the county boundaries. MDNR would be looking around forest to create polygons around blocks that represent state ownership within the state forest.

Rob Surber, MIC, suggested that MIC and MDNR talk about facility identification standards, to enable communication at a core base among agencies. Asked if this is a pilot or actual program.

Gary Bilow, MDNR, responded that the Wild Life Division has been mapping their facilities to a higher level of accuracy than 40-acre grid and the data will be brought into the system, but this data should be attributed. The rest of the mapping will be done to the extent the money lasts.

Rob Surber, MIC, asked if there is a projected plan as to what will be accomplished this year.

Gary Bilow, MDNR, responded that they are not sure because it was a funded project that got moved into Set project at the Roscommon facility and they unsure about priorities. The details need to be worked out.

Jeroen Wagendorp, Allegan County GIS, offered to give MDNR the Allegan County State Lands so they can see how MDNR's pilot works.

Rob Surber, MIC, stated that MIC is interested because they would like to integrate into a statewide viewer and make available for other departments. Want to keep track of issues as they come up.

IV.   Michigan Department of Transportation (MDOT) Projects and Updates

Gil Chesbro, MDOT, reported that they have spent a week with an Oracle representative to investigate and implement Oracle Spatial into MDOT's databases. Oracle is attempting to have an Open Format instead of Project Format for GIS spatial data. This was loaded onto servers. Then they started populating databases and have begun investigating. Most follow odious standards with tiny exceptions. Will continue to investigate, but think this will take time to mature. MDOT would like to put the Upper Peninsula up there.

Joyce Newell, MDOT, reported that they are in the process of getting a memorandum of understanding (MOU) for Michigan State Industries (MSI), so that MSI may continue working on Livingston and Macomb counties. Joyce anticipates the MOU to be signed by all parties within the next few days. Terry McNinch, Local Technical Assistance Program (LTAP), Michigan Technological University (MTU), created RoadSoft for cities and counties to do inventory of their roads. MTU is planning on using framework as a base because it will update the physical reference (PR) system. MTU will build into their next version of RoadSoft, GIS capabilities as well. Terry McNinch contacted their clients to have them review the maps that had been provided by MIC and if they had not received them yet, to contact Joyce Newell, MDOT. Counties are eager to review the maps before it becomes a final product.

Rob Surber, MIC, explained that LTAP has a contract with MDOT to be a go-between agency for MDOT and the county road associations.

Joyce Newell, MDOT, commented that MDOT's contacts are metropolitan planning ogranizations (MPO), counties, cities, and local police departments. MDOT is providing maps and ArcExplorer CDs to MIC to mail out along with instructions as to what needs to be reviewed before it is added to framework.

Rob Surber, MIC, stated that the GIS implementation of RoadSoft is scheduled for fall.

Joyce Newell, MDOT, commented that they are looking at a couple of more months down the road. It will be orientated toward to ESRI products.

Rob Surber, MIC, added that it would be available to anybody who wants it.

V.   Michigan Department of Environmental Quality (MDEQ) Products and Activities

Steve Miller, MDEQ, reported that they have proceeded with the implementation of the spatial database. They loaded the framework data into the ESRI spatial database engine (SDE) and are serving it out with ArcIMS and it is working well. They have a grant program that allows communities to properly abandon wells within designated wellhead protection areas. Communities are using Internet interactive mapping to determine the wells that are eligible for work. Another application is for the well drillers to review MDEQ's data in Well Logic. They are first group of users to see the feedback of data they have entered in. They will find the information helpful to see the wells that are in the area and the depth of the topology. They can learn to use it, find their locations and print well logs. The framework will zoom into an area and do the labeling of the roads fairly quickly. Steve offered to do a demo at the next meeting. MDEQ is adding information from MIC showing the address matching of storage tanks. The Storage Tank Division is continuing the process with MIC to get more of the addresses located on the map.   MDEQ is buying 12 hand-held global position system (GPS) units to go into the field. The database will have the facility name, identification, number of tanks at each facility, number of tanks that have been pulled, number of tanks that have leaked, number of leakers that have been pulled, and number of leakers still there and leaking. MDEQ is also working with the counties on the drinking water source water assessment for community water supplies. They are planning a workshop in February to provide them with the new map viewer in the new version. Some counties are still don't have Internet connections at all locations, so they are looking at alternatives. MDEQ's website is http://204.24.46.54/website/imap and Steve's phone number is (517) 335-8174.

VI.   Michigan State Police (MSP) Projects and Activities

Eric Nischan, MSP, reported that the Emergency Management Division is setting up a web ArcIMS system. They have the hardware and software and are waiting for the server rack. Within the next few months hope to get it up and running. The Michigan Hazardous Analysis is a yearly publication in book form showing black and white maps, will be moved to GIS for the 2001 publication and will also be on the web. Ottawa County has been awarded with the Project Impact Grant from Federal Emergency Management Agency (FEMA), which gives them money to mitigate against future disasters. The MSP guides them and the money funnels through them. MSP hopes to integrate the five Project Impact communities' local GIS with MSP's GIS. MSP is also working on an automated system of GPS for nuclear power plant monitoring for nuclear accidents for

evacuation and offsite release. MSP has a Visual Basic program, developed by Paul Holland of D C Power Plant, to integrate GPS with the instruments that take the readings. MSP will integrate this data into their IMS wireless system. The Michigan Emergency Management Association (MEMA) is having their yearly conference in Benzie County next week and will be giving a presentation on implementing GIS locally. Call Eric Nischan if you are interested in more information.

VII.   Michigan State Industries (MSI) Projects and Activities
    Carol Woodman, MSI, distributed a current status map. They are getting close to the end of the project. They received Livingston and Macomb counties and will be working on them soon. Everything is done except Oakland and Wayne counties.
    Rob Surber, MIC, stated that MSI is tagging completed framework files with additional MDOT business attributes – functional class, road ownership, bridge identification, etc.
    Carol Woodman, MSI, added that she works for the Michigan Department of Corrections whose inmates are working on the project. It's been a good project and has worked out well.
    Joyce Newell, MDOT, stated that they plan on giving MSI more work.
    Rob Surber, MIC, comment that MSI adds the attributes and then the work goes to MDOT for quality control of attributes and then MIC does the quality control of integration of the entire map system. It is a fairly efficient process.
    Cary Adragna, MSI, stated that they would like to pick up more work for the inmates since the major portion of this project is done. They would also like to add a second shift but need more work.
    Rob Surber, MIC, commented that MIC has not had any problem with reintegration of MSI's work. In the first few months of the project they were able to address common standards and issues and MSI was very amenable to that.
    Eric Swanson, MIC, seconded this comment and added that this has worked well because of early up front communication.
    Everett Root, MIC, commented that MIC gave AMLs and a FoxPro program to MSI, which helped.
    Carol Woodman, MSI, stated that it would be helpful for MSI if they could get Wayne and Oakland in parts to work on. They could do their part a lot faster.
    Rob Surber, MIC, stated that when MIC gets the procedure down, they would talk about breaking these counties into more sections.

VIII.   MIC Projects and Activities
        A. GIS Awareness Campaign
            1. Addressing Authority Legislation
    Rob Surber, MIC, distributed the Draft of Proposed Addressing Authority Legislation. The state has seen that there is a need at the local level for better communication, better core standards, and a way to resolve addressing conflicts. The draft is to generate interest at the local level, since this is a local project problem that trickles up to the state in a variety of statewide programs. The framework initiative relies heavily on addressing referencing. Michigan Association of Counties has been reviewing the draft and it is important for the Michigan GIS Users' group to also review. It is written to enable not to dictate standards. There are some core issues mostly at the county level, even though addressing is being assigned at the local level. But a countywide clearinghouse of information would be useful. Rob will be presenting this information at the URISA Addressing Conference later this month as a draft. MIC's role is that of a technical lead to some of the state agencies that have a business interest and would like to provide an official holding place in the GIS system for the state for the data in map form. At this time, they are developing a list of frequently asked questions.
            2. GIS Day
    Rob Surber, MIC, reported that there is a lot activity going on for GIS Day. MIC has been considering having a GIS Day presence in the Capitol to provide an opportunity for private sector, local, counties, regional governments, state and federal agencies doing GIS work in Michigan to make their applications and the value of

service provided to customers more visible. Would like to do this while the legislature is in session. The problem is that GIS Day is during deer hunting season, so are considering the idea of having a Michigan GIS Day around December 1. The point of GIS Day is to make it visible and this would provide the maximum benefit. Want to have a volunteer working group to participate. The day would be a display in the form of posters of what you are doing – similar to URISA and other conferences. Would like to have press releases and advertise it. It is open to anybody who would like to participate. If you are interested, contact Rob Surber at (517) 373-7910.

B. National States Geographic Information Council (NSGIC) Report

Eric Swanson, MIC, reported that the USGS reorganization was a topic of conversation. Eric is interested in learning more about the satellite image business. Eric is just about sold on doing a statewide buy from Spot. Spot offers images unbelievably cheap and it is shareable across the board to local governments and state agencies, but not the federal government or the private sector. It is $20,000 for statewide 7-meter coverage '98-2000 data. If buy now, in two years can roll into 5-meter and two years after that can roll into 2.5-meter. If interested in satellite imagery, contact Eric Swanson at (517) 373-7910. The Federal Geographic Data Committee (FGDC) is also reorganizing. It is beginning to look at how it is operating and what their role is. There are several states, including Michigan, that are beyond what the FGDC is doing. States are demanding interaction at a federal level in an infrastructural manner. The Federal Office of Management and Budget is getting involved in coordination of federal agencies' GIS development and moving forward with a national framework. Eric is excited to hear there is a move into the infrastructural commitment and link into federal agencies.

C. USGS State Mapping Workshop Report

Mark Coppersmith, USGS, reported that there is a USGS and Space Imaging sponsored workshop dealing with licensing issues the end of October or beginning of November.

D. National Aeronautics and Space Administration (NASA) Meetings

Eric Swanson, MIC, reported that he attended a steering committee meeting for this workshop. NASA has an interest in entering the state and local market. Eric hopes to know more after attending the meeting the end of October in Auburn, NY.

E. Drain Code Legislation

Rob Surber, MIC, reported that there are changes to the drain code in the Senate. One of the components is potentially an assessment of state impervious surfaces (parking lots, buildings) - when there is a drain project, the state will be assessed. The MIC has been working with the Department of Agriculture to analyze this. They are trying to determine which counties have already mapped the drainage areas in the state. Then hope to integrate already mapped facilities information. Rob displayed maps with elevation data, watershed boundaries, and state facilities produced on MIC's plotters that were provided to Department of Agriculture. The Department of Agriculture is interested in drainage areas that cross county lines because it involves different governmental agencies. Framework will be an important component of this project.

IX.   Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that SEMCOG got 3 smaller county files that are through Phase 2 and they are trying to figure out a process to integrate and update the attribute updates. They decided they need to get mileage network reconciled with the framework. It might take a month or two before they start to integrate framework. Ann asked if anyone is using GIS to do environment justice input to meet federal regulations.

Gil Chesbro, MDOT, responded that he would check with the MDOT modeling people.

Steve Miller, MDOT, added that their Air Quality Division looks at that data for the socio–economic conditions in an area. Steve offered to locate a contact person.

Laura Tschihart, Tri-County Regional Planning, reported that their land use update project is compete. The growth analysis is still in the review process. They have received the land use data for Ingham, Eaton, and

Clinton counties, but the file format is not compatible with Tri-County's and they are working on it with HTB, the consultant. Tri-County is also working on a forecast model.

X.   MSU Center for Remote Sensing and GIS Projects and Activities
    Bill Enslin, MSU, reported that they are working on seaming the United States Geological Survey's (USGS) digital rastor graphics and images in county format in Michigan GeoRef coordinate space. Then these can be carved out in independent geography. The first one carved out was for MDEQ by health districts. The challenge is to put the whole thing in one image. They are looking at compressing to MrSid, but heard that there are speckling problems. They have accelerated the CD creation for LandScan for updating the counties. Twenty counties have been updated this last month in the southern Lower Peninsula. The final schedule for ESRI classes at MSU for spring includes: What's Geo Database in ArcInfo 8; Programming Objects with Visual Basic Applications; Creating and Managing a Geo Databases with ArcInfo; and Migrating to ArcView 8.1. The requirements for the ArcView 8.1 machine are beyond what they currently have in the lab, but they plan to outfit the entire lab by January or February. The ESRI class schedule may be found at www.crs.msu.edu under Products and Services.
    Bill Enslin, MSU, also reported that Debbie Schutt, IMAGIN executive director, is resigning in November. There is a request for proposal (RFP) on the IMAGIN web site for a new director. This is a full-time position.

XI.   County / Local Projects and Activities
    Jeoren Wagendorp, Allegan County, reported that they continue to work on geocoding aspects of GIS and are finding that geocoding by address ranges is not working because of historical information. They have contacted Consumer Energy to access their files. Conventional geocoding approaches will not work. The final analysis will be good.
    Rob Surber, MIC, asked if there will be proprietary restrictions or if the data will be available to all.
    Jeroen Wagendorp, Allegan County, responded that he is unsure, since they will be getting the information from others. Jeroen also distributed an Allegan County road map.

    Mike Hass, MSU Extension Branch County, reported that they are waiting to see how the parcel conversion effort succeeds in the MDNR. Due to budget, they are looking for freeware.

XII.   Federal Projects and Activities
    Mark Coppersmith, USGS, reported the innovative partnership (IP) for digital ortho quads (DOQ) has been signed and finalized and the funding has been allocated. Distributed a handout showing what is currently in work and what is available in black and/or white and color infrared. Per the IP, Baraga and Dickinson counties are completed and available. Projects for other DOQs for Emmet and Charlevoix counties are currently underway. There is also an agreement with the Corp of Engineers and CUPPAD for Menominee and portions of Delta County. The Forest Service is updating their DOQs for the Hiawatha National Forest in the Upper Peninsula and Ottawa National Forest. Marquette and Luce counties in the Upper Peninsula are not being worked on. Doesn't show any work being done in the Lower Peninsula. There is a pilot project for building high resolution hydro data for the national hydro data set. They are building 1:24,000 high resolution hydro data for the Black Macatawa and Manistique watersheds. They are still hoping to get and accurate estimate of cost for the Rouge pilot. The 1:100,000 scale of hydro data sets is available. It can accessed and downloaded from the web site – the address is nhd.usgs.gov   Also the Environmental Protection Agency (EPA) web site has a search your water shed tool. When the data becomes available, will be able to search by name or reach code. Mark also stated that the USGS has 4 divisions – mapping, geology, water resource, and biological resource. The USGS is reorganizing to create a seamless Federal Science Agency. Michigan is in the Eastern Region, which now includes Michigan, Wisconsin, Illinois, and Mississippi. The reorganization will provide a state liaison office in Ohio to handle Ohio, Michigan, and Indiana. Charley Hickman will be the state liaison out of the Columbus, Ohio office.

Bernie Skipper, Natural Resources Conservation Service (NRCS), reported that they do the digital soils for state of Michigan to national mapping standards. They currently have 12 counties available. There will be a new download of the attribute data of soil properties that will be accessible November 1. There are a lot of counties in the map compilation stage and digital stage. All 12 counties have been certified. They also do work for Indiana, Ohio, Michigan, Illinois, and Pennsylvania.

Mark Coppersmith, USGS, asked if the soils data could be integrated into framework.

Rob Surber, MIC, responded that he was unsure what that would look like. It operates independently of the physical features of the base mapping activities. He stated that as the MIC does repositioning of framework to the standards and digital photography, the common source for both should be comparable and should be reflected in the Metadata. It should be explained for users in the Metadata. Rob asked if there are other states that are documenting Metadata from a framework perspective?

Mark Coppersmith, USGS, responded that he had recently heard from another state who was very concerned about the certification process of their soils data since we were making new DOQs. They based their data on the 1990-91 data and were concerned that the new DOQs were going to be better and didn't want to have to move things around and then go through the recertification process, which could happen if new controls are needed. That may be a question that arises more often.

Bernie Skipper, NRCS, commented that there are three sources used for the soils data.

Rob Surber, MIC, stated that that type of information could be useful to the users.

Steve Miller, MDEQ, commented that they have been using soils data as part of the project with MSU. Have been trying to get soils data for years from other places that are in digital form but have not gone through the formal process, which takes a long time when short staffed. Have been trying to accumulate as much information as possible. Working with John Bartholic, MSU, to key the information into Michigan Resource Information System (MIRIS), some of which isn't useable in its current format. It will be clearly indicated in Metadata whether it is digital soils and whether it has gone through the formal process.

XIII.   Other Issues

Rob MacLeod, Ducks Unlimited, reported that they have a Saginaw Bay Watershed project. They are mapping data to help biologists.

XIV.   Next Meeting Date

November 2, 2000, 10 a.m. until 12 p.m., George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910